

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claims 1-8 (Canceled)

9. (New) A method for authenticating users to individual network devices that are distributed among a plurality of locations, comprising the following steps:

storing a directory structure at one of said locations, said directory structure comprising a root node, a first level of nodes below said root node that are associated with respective organizations to which said network devices are assigned, and at least one further level of nodes below said first level that identify users who are authorized to access the network devices assigned to the organization associated with a parent first-level node and authentication information for said users;

replicating said directory structure among said plurality of locations;

in response to a request by a user for access to one of said network devices, determining which organization to which said one device is assigned and whether said user is identified on a node below the first-level node associated with the determined organization; and authenticating said user to said device if the user is so identified.

10. (New) The method of claim 9, wherein said directory structure further includes nodes below said first level that identify resources of an associated organization to which authenticated users are allowed access.

11. (New) The method of claim 9, wherein said determining step is performed with reference to a replicated copy of said directory structure at the location containing said one device.

12. (New) The method of claim 9 wherein said network devices comprise servers, and said locations are data centers.

13. (New) The method of claim 9, wherein at least some of said locations contain at least two replicated copies of said directory structure, and further including the steps of distributing access requests among said replicated copies by means of a load balancer.

14. (New) The method of claim 9, wherein the same user identification and authentication information is contained at a plurality of said further level nodes that are respectively associated with different ones of said first-level nodes.

15. (New) The method of claim 9, wherein said replicating step is carried out automatically without user input.

16. (New) A data center comprising a plurality of network resources and a directory server for authenticating users for access to said network resources by means of a directory structure comprising a root node, a first level of nodes below said root node that are associated with respective organizations to which said network resources are assigned, and at least one further level of nodes below said first level that identify users who are authorized to

access the network resources assigned to the organization associated with a parent first-level node and authentication information for said users.

17. (New) The data center of claim 16, wherein said directory structure further includes nodes below said first level that identify resources of an associated organization to which authenticated users are allowed access.

18. (New) The data center of claim 16, wherein the same user identification and authentication information is contained at a plurality of said further level nodes that are respectively associated with different ones of said first-level nodes.

19. (New) The data center of claim 16, comprising at least two of said directory servers, and further including a load balancer that distributes requests for access to said resources among said directory servers.

20. (New) The data center of claim 16, wherein at least some of network resources are servers that each include an authentication module that is responsive to a request for access to determine the organization to which its corresponding server is assigned and restrict directory searches to the further-level nodes below the first-level node associated with the determined organization.

21. (New) A distributed network having network resources distributed among a plurality of locations, and comprising:

a master directory server at one of said locations, said master directory server containing a directory structure comprising a root node, a first level of nodes below said root node that are associated with respective organizations to which said network resources are assigned, and at least one further level of nodes below said first level that identify users who are authorized to access the network resources assigned to the organization associated with a parent first-level node and authentication information for said users; and

at least one directory server at each of the other locations, each of said directory servers containing a replicated copy of said directory structure.

22. (New) The distributed network of claim 21, wherein said directory structure further includes nodes below said first level that identify resources of an associated organization to which authenticated users are allowed access.

23. (New) The distributed network of claim 21, wherein the same user identification and authentication information is contained at a plurality of said further level nodes that are respectively associated with different ones of said first-level nodes.

24. (New) The distributed network of claim 21, wherein at least some of said locations contain at least two directory servers, and further including a load balancer that distributes requests for access to said resources among said directory servers.

25. (New) The distributed network of claim 21, wherein at least some of network resources are servers that each include an authentication module that is responsive to a request for access to determine the organization to which its corresponding server is assigned and

restrict directory searches to the further-level nodes below the first-level node associated with the determined organization.